Jany 18-70

St Louis 18 Jan 1870

Dear Parry

This morning your letter, this evening your seeds, and at once my answer.

Mind that that name "Cer. Palmeri" is provisional — It is distinct from any thing I know in Arizona — but there is a frequently cultivated (edible luscious) plant with fruit, which possibly may be this — let us hear from Palmer!

The seeds are "elegant" That big seed of Opuntia belongs to the dry plant and must be O. basilaris, but seeds very large — plant not in cultivation yet.

The spiny fruits belong to that Opuntia acanthocarpa, which I mentioned in my last letter to you or Palmer; but unfortunately they dont seem to be ripe "more suo" The large fruit of Opuntia with small seed I can not make out — probably one you had Palmer has sent before but did not germinate because not ripe — whether this is better?

Echinocactus is Le Conteii which may not be distinct from E. Wislizeni.

Now to the Yucca! Elegant again! and probably ripe!!

Y Arizonica — Who named it? where described? Narrow leaves like Y. angustifolia

and I would name it Y. angustissima, if not already named Arizonica — your sketch is admirable! You see I am not of the faultfinding order to night — it is only with unripe fruit that I have no patience! Well, this Arizonica is then one of the dry fruited ones, xerocarpeæ, as I named them long before Torrey found out that character. Good, that you sent Capsule & fruit — Capsule is remarkably pale — others are darker or brownish, so Y filamentosa. —

But here comes the great oddity that big unopened Yucca fruit, without leaf without label, standing solitary and alone on its merits. And they are great!

If I am not mistaken, this is an intermediate form and connecting link between the xerocarpeæ and sarcocarpeæ. It dont open, but is scarcely fleshy — and the seeds are also intermediate in thickness between the two sections. — You have I suppose other fruits — have they the same character? This one contained few seeds which seem to be good — and second live worms which were certainly less so.

I would name it <u>intermedia</u> but that is such a trivial name, usually designating a species or a form, which is so near two others that it seems to unite them; subcarnosa might be a good name — but I will find a better one. Give me all details you know about it. Are your other fruits also pointed, like

my specimens?

Agave good! What relation does it bear to ~~at~~ Parryi? can you tell? — I have now no specimen of the seed before me — Glad to get the leaf — Have you any more? Is this leaf you sent a small one or usual size? and how are the teeth or spines. The end of the leaf is wrenched off and all the lateral spiny teeth are broken off, how are they? about size, direction shape & colour?

The fragment of inflorescence — sent shows it to belong to the section allied to Agave Americana — —

I have seen numerous Agaves in bloom in Europe and have got an idea of the different forms of this vast genus — Brought seeds of our Agave Virgi to Europe, which gave great pleasure. Do you want any?

Pimenadia which is now in DC Prod classed with Buxaceae, is valuable — but unfortunately seed quite unripe. —

I have not now a draftsman, but may get Rotter again.

Thurber got 3 years ago some drawings of Pinus Engelmanni and others made by Rotter for me — excellent ones — has not returned them yet; must write to him about them.

If Thurber will do absolutely nothing, I may undertake your grasses — I have a rather full Collection, named by Thurber abt 10 years ago — I will see. Thurber seemed to me 3 months ago better looking than 2 years ago, I thought he might become more useful. I am mistaken?

Gray's beard! That is a good one! The old fellow must have had a good laugh.

But now good night! I intended to write 2 lines only and am on the 4th page!

My plants & books are still at Shaw's, but hope to get right in 4–6 weeks!

Yours truly

J. Engelmann

so more a number of Nl. Acad — respond — therefore and for 1000 other reasons will not be in Wash'gtn in April.

3003 Locust Street

(Cor. Corner of Jamison Av. & Locust St.)

(30 squares from the river!!)

Take care of your grey Cer. Blumii — sown to early, apt to perish — sow more in April!

Engelmann –

St Louis Febr 2? 1870

Dear Parry

You could not have made me a nicer birthday present than those Yucca leaves! — "Pauvris contenta Natura" many would say — for me they are not pauva: That Y. Draconis var you label at once Y. brevifolia. It would perhaps be more proper to leave Torrey's arborescens as specific name, but it is too insignificant a name while the shortness of leaves is really very peculiar.

There is not the least similarity to Y. Draconis which I have often seen in Italy. — The sharp serratures approach it to Y. aloefolia more than to any others.

Send me another leaf — no, I will try to get that trunk, you speak of. How is the fruit and seed — I have not Torrey at hand to compare. Send me those Photographs, if you can.

The Yucca of Bigelow I would take for nothing but a small leaved form of Y. filamentosa — very different from our new Y. (elephantipes)

So you will get me a photograph of the Arizona Agave (or Yucca). What is that? I suppose the one of which seeds have germinated in many places in Europe and which I had named A. Parryi. — But you do not inform me, whether the Agave of Palmer seems to be the same, or distinct; — is the leaf you sent me of Palmer's an ordinary sized one, or smaller.

Yes, by all means get those ill George people to get all those things but not to mix them up — and make notes of them — the different Yucca Agave, and Cacti and good ripe fruit of all of them.

It seems you have another fruit of my new Yucca (elephantipes); is it also closed, and semi-pulpy?

Bully for Thurber! I thought I found him brighter, when I saw him 3 months ago. I will write to him.

What do you have of living Cacti in your Garden? If I can not come to see them

they, or those of them that are important, may come and see me, or send their children to me.

Whitney's letter is interesting. He dont say how high he made Denver, you know, that in your second Expedition it came out higher yet — but I recollect that there was difficulty and discrepancy among your different observations. — Well, we will not acknowledge our selves beaten yet — And the difference of 100 feet in Gray's Peak dont amount to anything. — After all, if we are wrong in Denver, the difference is only 223 feet in more than 5000, or not much more than 4½ p. C. and at a distance of 1000 (?) miles!

Is the Yucca brevifolia a fleshy-fruited one, with thick seeds?

In that region (at least in New Mexico) there is that other tree Yucca which I had named Y. crassifolia, but Torry Y. edulis. — The St George man may get that also — He must be careful not to mix and confound; get leaf and fruit (and if possible, flower — pressed, or only wrapped up) of the same specimen; that will make it sure.

and now good bye — This day begins my 62° year — and I feel the importance of not getting older — must remain so young at least 10 years more!

Jurors will look at at daylight to morrow — Dont seem to be Pansy!

Yours truly

G Engelmann

What is the Secr. Acad. San Francisco's name he sends me a notice of my election as Hon. Member, but I can not answer because I can not read his name: Eloesser???

St Louis March 4 1870

Dear Parry

I will try to write as quick fast and illegibly as you do and hope in the best quality at least to beat you! But go on, write on — I suppose you have no time to practise Calligraphy just now. But please do write names of plants at least so that I can make out — but above all please put every thing which you think may interest me (and my interests are manyfold and comprehensive) aside for me in a big pigeonhole, — as you say you did those Sonora things of Schott's — thanks in advance!

Arventhobium, Lemna Caleichth Chara, Isoetes I will study by & by. You know that Canby discovered — near Isoetes "granulata" on Stone Mountain Georgia — Don't forget Utis.

I day or two ago I got a big box from you with Picea Mariesii cones — rather small, but numerous,

leaves of course fallen. — I'll salt them down, as Gray says, for future use — The species is ~~that~~ of gnarled tree with scraggy branches — more like the Mountain form of Englemann's. Is that the ordinary appearance ??

With it was the Yucca which I call Y. crassifolia and which Torrey publishes as Y. baccata I believe. I have had plants from Wilkinson's seeds 24 years ago — but they have died at Shaw's. Will sow again — as well as other Yuccas.

Get all information you can from Palmer — also about Cacti — I suppose I must correspond with him as soon as I hear from you or him and pump him out?

I could not help chuckling when the other day I got a big package by mail (what may the carrier think of my tastes and my correspondents?) from that formerly benighted but now glorious and enlightened State of South Carolina — and what was in it? P. serotina and especially specimens of P. glabra,

could dried, not pressed, like yours — clumsy, bulky, unwieldy, hateful, but still lovely!!

So, you see Rabinal helps also to furnish material for the future great work!

Candy and dried (and pressed!) specimens if flowering P. aristata.

I shall keep up stories like a gopher — but will they be worked up? —

We will see about next August and the Rocky Mts. — It would not do for me to run off thus lightly — but human weakness must excuse a good many faults

Good bye

Yours

Sereno

Asa

Thanks to Schott not only for the instructive notes on Yucca but also for the package of valuable Yucca plants, sent during my absence in Europe. I shall write to him by a by myself.

St Louis March 29th 1870

Dear Parry

I have not written for 19 days! Have been quite sick since — confined to house — had to give up patients, but unfortunately too sick to work in botany. When I got better I studied Wm Gabb's Cactaceae of Lower California collected in 1867 and given me in Phila. April 1868.. Gabb is a Geologist who knows nothing of Botany but took an interest in those things, made notes some drawings and brought (on mule back and with geolog. spec.) specimens small and often poor, a few bunches of spines. But on the whole the Coll. is quite interesting and spurs us or somebody to study more closely the Cactus flora of that peculiar country and get full specimens, notes and seeds!! —

O, that Palmer with his specimens had made such notes — how much more valuable they would be —.

But I loose myself among the spiny darlings!

Since I wrote you I got from you that splendid hair brush — peculiar in many respects.

I am distributing the different seeds and will send to Europe

this week

I have also got P. Torreyana Cone and today a set of Cactus flowers of Palmer. Pity that he does not make notes (vide supra!) Fortunately I know most of them, and one especially pleases me much as it is the flower, heretofore unknown, of one of Bigelow's discoveries — Cereus (sed Echinocereus) gonacanthus.

But Yucca flowers, without leaves, without notes! oh! oh! Fruit and leaf is important, but flower almost less than any other organ! Still it is good and important (even if only negative character) to have them — but leaf is always more important than flower. And there are Palmer's notes! notes? Notes ?!!! High — low — simple — branched — leaves stiff — flexid — smooth edged — rough edged — filamentose —

By the way, does he recollect any thing about that Y. intermedia?

And what is it you send me as Yucca Arizonica? Here the specimen and remarks are full enough: stem high, branched, leaves very narrow, stiff, filamentose — capsule dry, seed papery. But the question arises, whether those stems

mean real leaf bearing trunks, or only the flower bearing scape ?!

The matter becomes more important because the whole plant resembles, so much Y. aquatilifolia, that one would take it for that and even if it has a tree like growth. The question arises whether Y. aquatilifolia in that climate may not grow up to be a tree ?? Who named it Arizonica ? I substitute the name of stenophylla to show its close alliance with aquatilifolia — if Arizonica is not a published name. —

I have got for Shaw that fragment of trunk of Y. brevifolia in Pac. R.R. Office but was disappointed in it — hoped to get the top with good leaves and have only old withered leaves partly dissolved in fibres, all without edge or point. What you sent me has also no point. — Get full full operations & notes from Utah — also shape of panicle ? or spike ? of flowers.

Hope none of Palmer's coll. are wrecked !

Where exactly is "Fort Defiance" ?

"The Cereus sent was from Sonora (Altar)" letter of March 4th

I read it Alton, you correct: Altar but while I write, I think I find

the true word, which is: Alta —
Sonora Alta is the high, or upper Sonora
and I expect that is what is meant —
But what Cereus is it? Palmeri
or Thurberi?

I tried to identify some of Gabb's
Cerei with those from Sonora, but
only C. Thurberi and C. Schottii reappear
also our old C. Emoryi.

Palmeri C. Thurberi fruit is scarcely
ripe — very small — while Thurberi original
was like an orange, and very pulpy.
In Lower Calif it is called also Pitahaya dulce
Well we wont send the living
Cacti.

Braun is slow. have no answer from
him on letter written about Christmas,
overburdened with work.

If you have "plenty more seeds" of Thurberi —
why have you not sent on?

Give me a list of the Sonora & Arizona Cacti you have living
and short notes: C. Thurberi, from Guaymas —
2 joints — ribs? spines? — length of joints? etc

Has the other fruit of C. Rectus also a bald
side without spines? May that be a regular
character? It is a most remarkable
not to say abnormal, fruit; hope to hear
more about the plant which bears it —
where native? — Do your seedlings grow?

Now, is this a letter to go
free? — I send as usual with
stamp — Send one to Capron — answer
to his. Write again.

Yours ever
G. Engelmann

Locust Str 3003 or Corner of Locust &
(not Garrison Av.) Garrison Avenue

St Louis April 12 1870

Dear Perry

Saturday your last letter, today the package of Yucca leaves arrived. What a charming little porcupine that brevifolia head is! And I shall not possess it! Well, I will soak it and cut it up for specimens for you and me and others; it is such a dear pet.

Well all the others are no doubt Y. baccata, of which I had the flowers already of Wilkinson, but was too timid to publish; and the "Date" and "Banana" of the (what!) Charges of Arizona (beg Dr Palmer's pardon) is the same. ~~And then~~ brevifolia bears also a datish fruit — But the common southeastern aloefolia and the Texan longifolia (Engelm mss 1844, Buckley in Wright Proceedings 1867) I have seen with baccata; southeastern Y. draconis has seen fruit not seen by me. Y. aloefolia is the only known one in Europe with fruit

so that most botanists supposed all Yuccas had caudex!

Y. filamentosa, Y. angustifolia, Y. stenophylla and the Texan Y. rupicola (Schott's No. 2 & but in Texas stemless) have dry dehiscent capsules.

What Schott's Californian Yucca are, I do not know.

(Bot Bound 222 Bot Does 29)

Nor do I know Torrey's Y. Whipplei nor Y. pubescens — (Bot Bound 221) — and — might the latter not be = Y. brevifolia? Light that out with Schott! His figure does not fully agree. Has Schott specimens of this Yucca?

Now about angustifolia, the latin and stenophylla, the Greek. Yucca baccata is an example of Yuccas stemless north and caulescent south in North Mexico a tree! — Leaf and fruit are the important things in this genus — trunk some, flowers scarcely anything so far as at present advised. Leaves and fruit are here undistinguishable —

Femina trunk and tall, branching scape. Cant our explorers find intermediate forms?

At Shaw's "it" angustif makes a stem 6 inches high. — Schott describes it from Eaglepass as: stem 1-1½ feet high.

Glad you do away with the leafless intermediate ~~brevifolia~~ and gain fruit & seed for brevifolia! And so you raise seedlings! then we will soon see.

I had for 15 years wild Cijos seed plants of Y. baccata, but Shaw's gardener lost them!

How is the woodcut in Whipple &c Report III. p. 121 of Y. brevifolia?

To Schott my best thanks for nice plants and best regards — must write to him, when my head is less whirling around with anything and everything.

Did you send two or more living Mammillaria? without name date label etc? — I make them M. vivipara var Dædalea — I shall return as soon as I know from you. You don't mention them.

Palmer did a good thing in just drying up, without pressing the Cacti — Some of the flowers thus ripened fruit — ripe enough to examine — and all flowers could be soaked and well examined, better than the pressed and mashed ones. The Geologist Gabb did the same and I thus got some good things from him from Nevada and from Lower California.

Get you the photogr. No. 12 of Y. brevifolia for me. Of course get all the seeds you can for distribution. Do you distribute those Yucca & Cactus seeds also and to whom?

Yes I was quite sick, but am right again — That pertinent Microscope !! I will write to Braun again this week.

Yours truly

J. Engelmann

St Louis April 15th 1870

Dear Parry

I wrote you a day or two ago – the head of Y. Brooklin has been split – will make only two good specimens, the largest of which I return to you.

I have an hour ago got a letter from Braun – he says, that as instructed by Prof Gray from New York Nov. last, he sent the Microscope to Dr Flügel, the Smithsonian Agent at Leipzig. Flügel wrote that strict instructions from Prof Henry prevented him to send anything to or through the Instit. that was bought not presented or exchanged – so he declined to send, awaiting further orders. Mrs Mottenius, Braun's daughter then wrote to Gray for orders – and the letter most probably miscarried as it seems it was never answered. The Microscope is still in the hands of Dr Felix Flügel Leipzig and a letter to him (endorsed by Prof Henry as F. dont know you or the Agric. Department) will fetch it.

Of course you will have to direct how it shall be sent, — Red Tape, I suppose has spoiled the matter.

Very truly yours

G. Engelmann

Would it be well to write to Gray too, informing him of the state of things and difficulties?

I send again vouchers from this region & return for your collands & things!

Locust St. 3003 / St Louis Apr 19 '70
(cor: NW Corner Locust st & Garrison st.)

Dear Parry

There is again a valuable letter without a line except Cobely. Well, as it contains Yucca fruit I wont grumble. Y. aloefolia is the most common plant in Europe and in the bot Garden of Naples makes stately trees 25' high — fruit I have often seen — even here, at Shaw's but have not had fruit of wild plant.

But Y. glorriosa is still to me a doubtful plant and I am glad to get seed — but is it authentic? Send me a leaf! Who is the Commissioner who sends these things? Get me leaves and fruit also of the native aloefolia — of superba and whatever may grow South.

It may be well to give soon a synopsis of all our Yucca — but to do that I ought to have Tony's material, which he would gladly give me, if he would not neglect to pack and express it !!

(and of the old eastern species I must have seed and fruit and specimens in general.

The other page I had written some days ago and send now to acknowledge that Yucca seed etc.

You have got my note about the microscope ?

Yours ever

J. Engelmann

We have had here a nice imitation of your eastern cities — radical accomplishments — city treasurer defaulter $160,000 —

Yucca stenophylla

" till specimens, grows 15 – 20 feet high"
Parry in Febr.

" short trunk, occasionally branching, flowering branch 10 feet long"
Parry in April

Which is correct? Trunk about 2 feet?

Palmer's Cactaceae

Cereus Pecten Aboriginorum Engl. n sp

C. Palmeri Engl. n. sp.

136 C. Mojavensis Eng. & Big

134 C. gonacanthus Eng & Big

both somewhat differing from the original form, and both probably belonging together – for which the latter name is best; but both approach too near C. triglochidiatus Eng.

135. 137. Cereus Fendleri Eng. forma parvispina

132 & 133 You say "Cereus" and I following your blindly was sure it was an Echinocereus!! Until looking at the pretty thing more closely, what should it be; but the flower of an old friend

in fruit only
introduced by Bigelow, and no Cereus at all but Opuntia erinacea, a fine purple fl. Opuntia! Thanks! Had not known the flower before!

Echinocactus Le Conteï, which will merge into E. Wislizeni

Ech. Emoryi, straightspined form, closely allied to the former, but I think distinct enough — dad, very similar, was found sufficiently ripe in Ovary. — It is the plant that Palmer says, is eaten

The yellow O. Opuntia[131] I have no means of judging, does the fruit sent separately belong to it? Does the Dr recollect whether it is an erect plant? — Any of Bigelow's figures to be referred to it?

And last Opuntia arborescens which has never yet come with ripe seed, though apparently common in Arizona

(131) Erect

I have from you —:

Yucca with thin seeds (therefore dry fruit)
Central Arizona, Dr Parry Nov. 1867

Do you recollect it? Is it the stenophylla?
I begin to find characters in the flowers
and shall in future pay more attention
to them — help me out with specimens
withered flowers are as good and
often better than hard pressed ones

The Yuccas of the S Eastern states must
be revised!

"Y. baccata S Colorado, Hayden" but the label says
"Thomas" — This I suppose you sent twice, each
time with not quite ripe seeds.

The "St George man" must get flowers
and fruit & ripe seed of Y. brevifolia, to
propagate and see their fine species, and also to
satisfy us about the palpability of the fruit —
is it "date-like"? like that gloriosa?
or "nasty intermediate"

How did the microscope get to you?
what way? I expected the directions
to be in the case — I have none!

you know about the immersion lenses, the most powerful of the kind, are for immersion, and can not be used otherwise. A drop of clear water is placed between the lens and the object, as air is a refracting by it interposing, which makes the image much clearer. If you want more instruction, we must write to Gardiner.

I shall write to Torrey, also to Schott.

Is your Y. Brewer. dead, you say? the leaves sent are fine. I believe I will stick to "Brewerianus."

Glad that you begin to grow in about Y. stenophylla. I have again seen a specimen of Shaw's raised from Kansas or Colorado seeds — nearly 1½ or 1¾ feet high — branching!

I find the seeds of stenophylla of equal size with those of aquatica and much larger than those of Y. filamentosa.

I shall send the Decdalean Mammillaria. — don't know who sent to me; Hayden, you say, but he is rather cold towards me!

Yours truly and hastily,

G.

St Louis May 22d 1870

Dear Parry

thanks for the Yucca package which came safe to hand. Before I really begin to work them up, I must unearth my older specimens and notes. The Cases have left Shaws basement and grace my Museum but are not yet unpacked — The great drawback with me is my very sore fingers.

When I first opened your last letter I could not understand what you said of going west — not being able to see me, etc; and — I stumbled at your orthography and calligraphy until I found it was Palmer, who wrote me. Please give him the enclosed.

'Cercus Thurberi' is surely not an Echinocereus Engelmanni nor any

other Chiococcas but if not Thurber's, something exactly like it is seed. It comes up well with me. So does C. Palmeri which was the only one really fully ripe. Pity we do not know any thing more about it — It will be many years before the seedlings will be able to tell us any thing.

Cereus Beckii does not come — too bad. Is you grow it!

Agave from Arizona comes well.

Yucca brevifolia poorly and perishes again.

Y. Stenophylla not at all.

What of your things does germinate?

I am working at Cactaceae preparatory of the Flora Brasiliensis.

Your friend

G. Engelmann

Mobile Jan 18 1860

Dear Perry

Our lively correspondence has suddenly been interrupted, partly by my fault. The last I heard from you was your letter of May 24 from Genoa, "upset with excitement"

I hope you have righted again, & made the plant, the Carpella and the Yucca. I hope you keep a pocket book now — and in better order than those I left in Geneva and Vienna, where my things are buried and can not be lifted, it would seem.

Among the things that have come up with me are Cor Thurber's (absent) C. Wilcox's specimens — (but C. Wilcox has failed) Vasquez from Arizona with very further indications, no species or any other hold — Yucca stemless, black berries — Agave Ariz.

Have you Cor. Porter? I believe I have received the same plant 20 years ago from Dr Gregg from Magellan, Mexico & fed my insular cole specs, Osoma and also fragments of berries!

You are in North Carolina! good — and go in July to England! better but she will attend to Agr. Univ. Botany?

where all you go on the Continent!

Look at the Yuccas in the Kew

... Looked it, my time being taken up with Conifers & Cactaceae. See what they have, make notes etc.

The most western Yucca I know of is Schott's from Yucatan; Jamaica is also given as producing a Yucca and so is Canada for Y. glorosa!! Oh lucky Cooley! who can trust in you?

Something else? It is said in some Smithsonian publication, that Cinchona is now successfully cultivated in U.S. I have been questioned from Europe whether it is so, where, and to what extent. You as the official botanist could be able to tell me please do! Don't forget

"Figs better, not well yet — getting gradually into the old fancy & working order. Wish you would come and spend a few weeks with us!

Yours truly

G. Engelmann

NB. I have a small package for DeCandolle too late, I suppose for the Smithsonian envoy — can send it?

Have found a new Quercus hybrid: indication pointing!

Best regards to Schott.

GEO. ENGELMANN, M. D.
3003 *Locust Street.*

St. Louis, Mo., ... 187

no number) Cuscuta mitraeformis, Engelm. n. sp. Stems stout; flowers rather large (3 lines long and ~~about a little less~~ almost as wide) short pedicelled or subsessile in large glomerules; lobes of calyx orbicular, unequal, the two outer ones carinate or sometimes almost winged, rather longer than the short campanulate tube of the corolla and its broadly oval rounded at last patulous or reflexed lobes; subulate filaments as long as the oblong anthers, shorter than the corolla-lobes; staminal scales very broad, rounded, fringed, exceeding the corolla tube and incurved over the enclosed pistil; styles broadly-conical shorter than the ovary; capsule greatly enlarged, exsert, with the remnants of the corolla at its base, appearing bifid from the broadly enlarged conical divaricate styles, regularly circumscissile.

Between San Luis and Tampico, Dr Palmer. Fruit glomerules 10–12 lines thick; single fruits with the calyx 4 lines long. Well distinguished from the allied species by the broad scales which exceed the tube and principally by the very short conical styles and the large bivaspidate capsules. Its nearest ally, C. jalapensis has smaller flower and fruit and slender styles.

631.a C. Jalapeus is Schlecht. Engelm Cact. 478. an unusually large form, unfortunately without any flowers, only with mature fruit; on Schinus molle. It is distinguished from the last by the smaller flowers and fruit, narrower corolla with narrower lobes and scales which are scarcely or not exserted and especially by the slendery subulate styles,

631 ½ C. applanata, Engelm. Cact. 479. Not different from the Arizona form, which I have described under that name. The lobes of the delicate, white corolla are oblong-obtuse; the regularly circumscissile capsule is enveloped by the ~~remnants of the~~ withered corolla.

631 C. Americana Lin, Engelm Cact. 482. On Schinus molle a large and loose flowered form, found between San Luis and Tampico. A smaller and form with smaller flowers in a more compact inflorescence was found near Venadosa on Acacias and other shrubs.

C. corymbosa var. stylosa, Engelm. Cact. 484 (no number) the typical form, was collected near Vera Cruz.

I suspect that that Halenia must be made a distinct genus, Brachyrea halenoides I will look into it again.

St Louis June 21 1870

Dear Sam

here is a line to wish you God speed — but don't fail to write from Rome, and I shall answer, as in duty bound.

You remark that you did not say anything about that Commentary because you could see and examine it any time, is "naive" — I suppose Mr Johnson sees still more about it, but that doesn't do me any good — me, who is to describe the plant!! So, you see, before "estimating" Johnson you shall not be spared!

We will not doubt the Yucca, etc, though Palmer's sayings are not very reliable — though you leaves are not similar to other

Give my love to our good old friend Torrey, and tell him that I shall report on Vitis and Yucca which I have from him, when I have studied them. For the present the Cactus take up all spare time and those old things, Gregg (1849) and Fendler Venezuela (1853) come up again and are pure & interesting & valuable.

If you can get Cactus fruit in Kew Gardens, or dried flowers (pressed between cotton batting) think of me. The Phyllocacti in Kew are quite interesting, but as I was there were neither in flower nor fruit — One was in fruit and I was too modest to ask for it, and when I did the fruit had been cut off and thrown away!!

Your notice of that Echinocereus Johnsii reminds me of a note of Scott's on his label to a Mammillaria Geronimensis "ribs several". Isn't that instructive?

Remember me to our friends in Kew. Don't forget Thurber.

The Kew wrapper is good and cheap and I am very sorry after all — I did not take it!

Farewell!

Yours

Geo. Engelmann

You have tracked Coulter — I wish you had tracked his Cones in England!

Abies Pattoniana oder Tsuga P. ist der richtige Namen für den Baum or, publ. 1853 is the right name for the tree

St Louis Sept 30 1880

My dear Parry

your letter from Kew came to late to be answered so that you could get my letter in England, pity, for I would have had to ask a good many things from you.

Did Hooker get my letter of Aug. 10th about Yucca? He has not answered it! I am not at all pleased with his papers, which I see here at Shaw's. Thanks for the copies of the two first which you sent me.

I would have asked you about some Pine questions, which I have not solved in England, and also for some specimens which you must have in Washington.

I have not seen the original cones (there were only Cones collected) of Coulter of P. muricata, tuberculata and

I better mail this letter to Torrey, and you may find Newberry's 3 Abies in his herb. if you do not have them in Washington. Our Pinus aristata is anticipated in England as P. Balfouriana, but your P. Torreyana (which I have growing) takes precedence of P. lophosperma

radiata. They are figured by Lambert and Lindo but are not now in Kew or London. No doubt about the first and last; the last is absolutely identical with C. insignis, and the earlier name of g. comes from Solander has been the peculiar radiate fissure [illegible] whence the name! But the original tuberculata may be only a very slender cone of radiata — who described first what we now call ~~the~~ tuberculata? perhaps the "Cryptogam Committee" [illegible] also figured it in the flying sheet they published.

The Abies question is still unsolved. The Douglas' specimens in Kew are not satisfactory, and perhaps in confusion. Only Douglas' cones would decide, and those I have been unable to see. Next to Douglas I would trust in Newberry the only one, perhaps, who has been through the same regions with an eye to this question. N. sent me many years

ago scales and seeds of cones of A. nobilis and of what he then called A. lasiocarpa, but in Pac. R. Rep. described as A. amabilis, but not any branch. Now, if that collection of Newberry's is in the Agr. Department, I should desire you to get me scales and seeds and a small branch of Abies grandis from the Cascade Mtns, and a branch of what he called A lasiocarpa or amabilis. also a small branch of his nobilis. You are, however, aware of the great variability of foliage of the same species on young and old specimens, on fertile or sterile ones, on erect robust shoots or horizontal lateral branchlets. — How is the bark of old trees of your Colorado - A grandis, ashy white or cinnamon brown?

What Bolander now takes for A. amabilis is something very different from any "amabilis" I have seen in English herbaria or gardens.

I have had a good letter from Johnson and a live specimen of an Opuntia but not the E. Johnsonii — perhaps Palmer will though seeds of something like it

bring things with him, also Yucca; O. wrote me from Yucca, and will probably be here this fall. Johnson says he has never seen or obtained fruit of Y. brevifolia, but thinks it is dry, not juicy. I believe I can now tell from the ovules whether the fruit is one or the other! —

You say, you are afraid Cereus Peckii aboriginorum would die in winter for want of care. Suppose you send me a couple of young ones (in a small box) by mail, and I will take care of them — have not raised any, but the young Thurberi with 8 ribs and 8–10 spines and a few Palmeri with 4 ribs and 4 spines are doing first rate; also a few specimens of a Mamillaria of Palmer's seeds. How my young ones in Paris may fare now? bombarded? abandoned. — One collection was outside of Paris, by a Frenchman, in the new Prussian lines — the other and best one in Paris, by a German Horticulturist, who is probably driven out —!!. And where my friend the Army surgeon Weber, of the Hospital des Invalides is? He wrote me in July he would probably be sent to the seat of war. — George is very busy in Military hospitals. Thank you for slips I got from you; thanks. Respects to Torrey! Write soon — Yours ever

G. Engelmann

Mr. Asa Gray, Cambridge, Massachusetts

St Louis Oct 17 1870

Dear Perry

thanks for the nice specimen just received. It is certainly Pch. cylindracea as you suggest — and we will now see what may become of it. NB 12 years ago I got in Washington, Congress. Garden, seedlings of an Echinocactus which have now grown up under all neglect and prove to be E. viridescens! Any living yet in W? Mine are only 2½ inches in diameter, poor.

So the 2 Yucca slips came from you! The other day I got 3 more from Kew without a line; one is missing. I shall have to wait for Baker to write to me. I had written him a long and full letter, and in his forthcoming work he may use my notes!! Let him!

I have a nice lot of Pch. Simpsoni fresh from Colorado. Do you want any? I was afraid to trust our forgetful friend Torrey with a letter — glad to hear that you got it.

nothing from Johnson; he has not answered my last letter. Do you hear from him? How could I send him my Cactus book, too large for mail.

I have seen today, rediscovered specimens of our old Boundary Cact., considered lost long since — C. Schottii, C. longispinus, C. Greggii and a few others; shall try to get them and propagate them.

More when I get your promised letter

Your truly
G. Engelmann

How did you find the old country, how old Torrey — Thurber —?

Did you see in Kew my disposition of the artificial Pinus Sinclairi?

P. insignis cone + P. Montezumae branch = P. radiata Bot Mag

P. insignis branch + P. Montezumae cone = P. Sinclairi Bot Mag

Monterey Tepic

In your absence the Abies question has grown warm again with me, and I have come to strange conclusions.

1. Abies grandis from all the Rocky Mountains, Colorado to Montana, and Cascade Mountains is individual and is = A lasiocarpa Hook, the original sp. of which, collected by Douglas I have examined.

2, There are different other forms (of grandis) in Oregon and California of the same, and the one with the largest cones, Cascade Mountains is A amabilis, and this was collected and figured by Newberry.

3, What Bolander now sends from big tree grove as A amabilis is very distinct, but is not Douglas' amabilis of which I have seen a branch in Hb. Kew and living trees in different English gardens. It seems to differ from nobilis only in the short bracts, not at all in the foliage. The A. magnifica and robusta of English nurseries is

this plant, but non of Douglas' seedlings look like it.

What I want from you is now a fragment of a branch of Newberry's specimens of A. grandis, A. amabilis and A nobilis, and a few good scales and seeds of the first. At the time he sent me a few scales and seeds of what he called A. nobilis and A lasiocarpa. The latter I suppose is what he afterwards published and figured as amabilis. Now I would like to see the foliage of all three — a few scales and seeds of "amabilis" would also be desirable.

Pinus Bolanderi Pursh is the old original P. contorta of Douglas, both from swampy land near the sea coast — small stunted trees with very narrow leaves, and perhaps at least to be distinguished from the Mountain Contorta. I wrote to Bolander about all these things but can not get answer from him. He may not be in San Francisco

St Louis Nov. 4 1870

Dear Parry

your letter of Oct. 24 and several packages have come to hand. Thanks for them. Thanks also to friend Schott for that fruit of Yucca aloifolia, the true plant! I had had it before but ~~that~~ you know we always find something new when we examine a thing anew, it thus was very interesting to me. But I want now the fruit of Y. gloriosa (with entire leaves) also. By the way, did you send Palmer's Yucca seeds last winter to Kew? I am now sure that P. is right and that our Y. intermedia is = Y. brevifolia. I found a fragment of fruit coll. by Bigelow in Whipp. and seed = exactly the same. I begin to find characters in the seeds and in the flowers. I think that our commonly cult. Y. filamentosa (here at least) is distinct from the true plant, which has almost spatulate leaves, broadest in

upper 4th, ours is

lance-linear. Ravenel has just sent me flowers of the former, very different from our flowers. How is the Y. filamentosa cult. at Washington?

I believe I have not told you that I had a good letter from Baker and also his Liliaceae capsulares (where does Yucca belong??!)

Your item about Newberry & Kellogg is worth knowing! a bit of scientific scandal

Many thanks for Ech. Johnsoni. Did you get E. Simpsoni? — Both Cereus seed are forms of C. Engelmanni, allied to var. chrysocrinitus (Engelm.). Another form was sent by Johnson, who has also sent a big Mammillaria, which perhaps is nothing but a big form of M. vivipara — at least allied to it.

Seeds of M. pulchellopsis are good — it has never been in cultivation.

Do you hear from Boland? He don't answer my letters. Miffed? why? Ongaret of microscope?

I was through Kew Pinetum with Oliver, but don't think I saw "P. Sinclairii" I labeled all I knew.

O yes tuberculata is good, but question whether Don's (Coulter's) tuberculata is our present plant. There is a cone some where but I did not see it. It is figured by Lambert and copied by Loudon, and if Coulter's remarks (100' high, on the sea coast at Monterey) are not a confusion, must be a slender cone of insignis. I have asked Boland whether insignis ever makes such slender cones. Radiata is the same as insignis and was published a year earlier. 1837

No, I never got Beechey!! forgot all about it. Must write Lowry — you better do it. You may have many things for me, I might send it there, or send it by mail. Don't forget to write to J.

I told you that P. Sinclairii is a cross between P. Montezumae & P. radiata

P. Montezumae Cone P. radiata leaves = P. Sinclairii
P. Mont leaves P. radiata cone = P. radiata Hoshna

Keep sending things, Cactus, Yucca — and plenty of seeds of them. I suppose you send to Kew also?

I intend to cultivate all Asters, Solidago, Helianthus I can get. Can you help me with species we do not have here?

Thanks to Schott — shall write to him soon

Yours truly

S. Wagenknecht

Albin Graebner
Botanical Museum
Yale

[illegible] Jan 15 1870

Dear [illegible]

[illegible] Palmer [illegible] yesterday together with an excellent [illegible] for packing [illegible] Colorado & Simpson's [illegible] Capt Simpson as you persistently write. And this brings me to another question.

This species was first discovered in Utah in Capt Simpson's Expedition 1859 by my brother, and was at the Captain's request together with one or two other Cacti figured by Wrotter for publication in his report. Had report does not come out and the Surveys are no longer at the War Office probably with me Botanical not in or with Capt Simpson. After a route from Utah & Nevada. If it ought to be published and made use of, and there is now a good opportunity as they publish. For a Utah in doing the Cacti and I have been requested to furnish plates, of course due credit would be given the War Department and Capt Simpson. Speak with the Commissioner and see if anything can be done.

[illegible] have [illegible]
this before you went to Europe
[illegible]
[illegible] them [illegible] see [illegible]
[illegible] and [illegible]
soon about it [illegible] or sooner.

[illegible] letter came this morning.
[illegible] tells me all about the spec
[illegible] may have more [illegible]

[illegible] is no doubt [illegible]
[illegible]
Schotts seeds [illegible] 1½ feet high.

[illegible] box sent off a week ago
[illegible] arrived [illegible]
accompanying [illegible] it will
come to hand before I can get
[illegible]

[illegible] sent [illegible]
[illegible] be [illegible]
[illegible] 32 [illegible]
[illegible] keep Johnson [illegible]

If you think that [illegible]
will be well taken care of [illegible]
[illegible]

[illegible]

[illegible]

Dear [illegible]

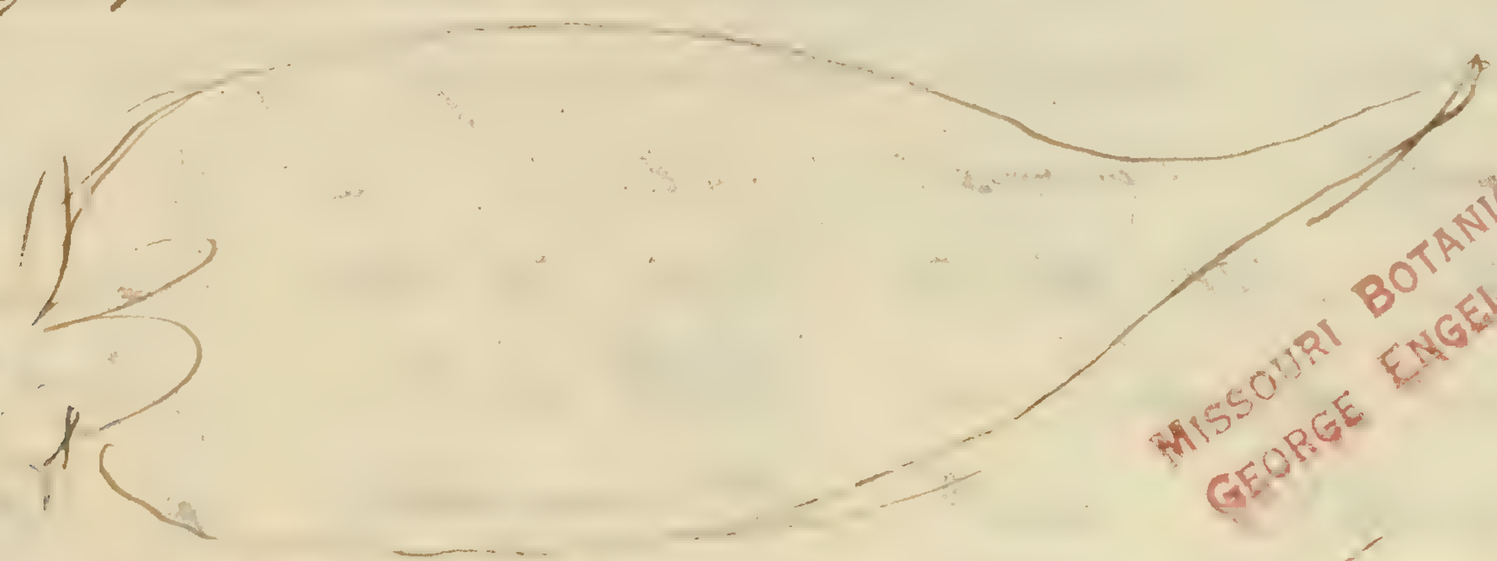
Dr Chas. Gibson, is the real Cassiopea as Torrey says — but it is not the small form of A. grandis which you also find in the Mountains of Colorado.

Bridges 330 is Abies bracteata, the most interesting in Bigelow's new & small mountains. This identical specimen [illegible] 8?4 from Darwin. Such I in Mss has named A. concolor; which name was taken up by Lindley and now by Pursh, & I had afterwards supposed from A. grandis but begin to mistrust, and find traces of the same from the mountains of Humboldt [illegible] but we know not enough of it, & must be better investigated in [illegible].

You will find that it has usually leaves [illegible] on both sides, [illegible] A. nobilis and A. amabilis of Douglas. I suspect that is not a permanent character, the shape of the leaves in this must be better studied [illegible] on young and old stems & [illegible] erect [illegible] horizontal branches [illegible] these things when you

[illegible] in the Mountains seems [illegible]
[illegible] serve you. [illegible] did you see
the G. grandis with leaves as [illegible]
[illegible] & Mengziesii? I enclose a few
leaves for you to wonder at. Very
[illegible] the Solidaster Virgaurea [illegible]
[illegible] had another letter
[illegible] writes [illegible]
[illegible] & [illegible] have been received. Yes, Cacti we lack if you
[illegible] at least [illegible]
from Orakin in which he acknowledges
that his army of drying [illegible]
rule a pis-aller. [illegible] the best
[illegible] circumstance.

— Johnson sends leaf and unripe
fruit of Y. baccata — fruit with a
long rostrum



Is that the usual shape?

This sheet was written a week ago
and is inclosed, as it contains some
notes of interest.

Dear

Your box came off
yesterday
unfortunate & too much packed,
thanks, for the fine things.
Importantly many were without
notes, some with more numbers.
The fine columnar Cereus is
C. Schottii! Schott will be pleased
to see his old namesake; and so
was I. But why not send me
sections of the upper branches
showing fruit? This is the
only part that I get a request for
Schott from Sonora
and California and so
I want. But this day I do
not know the upper flowers and
fruit. So there a living specimen!
for the fragment and fruit
still fresh. Tell me how many inches
it has, and give a Diagram of the
cross section. Send flowers & fruit

[illegible] a great [illegible]

[illegible] Wilkes Exp., we got

[illegible]

No 10 is probably [illegible]

[illegible]

I [illegible]

I come to the [illegible]

[illegible] other [illegible]

[illegible] thing of [illegible] of

[illegible] polygraphedes [illegible]

[illegible] figured [illegible] Dr Wippple

[illegible] by Dr Gulow.

The Orcinites are interesting

[illegible] a most [illegible]

It is remarkable, that

there is not a single species

[illegible] among the [illegible]

Yours

[illegible]

GEO. ENGELMANN, M. D.
3003 Locust Street.

Exadenus   Valeria

St. Louis, Mo., 187

Dear P.

more mature consideration induces me to change my opinion, and the two forms of Exadenus, which you send as No 600 probably belong together as forma robusta and forma gracilis (or longiramea) of E. brevicornis. It is better and safer, with so little material at hand to refrain from inaugurating a new name (not a new species!)

yours E.

POSTAL CARD.

ST. LOUIS MO. FEB 14 1 PM

U.S. POSTAGE ONE CENT

WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER

Dr C Parry

Davenport

Iowa

[illegible] to you and
[illegible] for the different things.
[illegible] Alcohol prints of Gigantea
I have plenty [illegible] good seed
is desirable.

I am now deep in the Agave
question [illegible] have [illegible] with
out on the accompanying sheet
a number of data and questions
which I will go [illegible] and Palmer,
to consider and to [illegible]
much information as you can.
I omit also to tell about it
no rod — as left off of 1862 (No. 2) [illegible]
larger than those of No 3 [illegible]
[illegible] Thing left [illegible] Mexico [illegible]
[illegible] sequent.

[illegible] these differ [illegible]
[illegible] that I have 10 numbers
[illegible] from the South [illegible]
[illegible] specimens [illegible] notes
but can not imagine that there are
10 distinct species.

Please return that sheet with my notes.

[illegible] but [illegible] are in very poor condition. [illegible] of them will die on [illegible] good examination. — I hope you have better specimens growing, so that can supply us with young one. [illegible] yea.

Dr [illegible] promises in his [illegible] to send soon a communication about his collection. Please tell him that I shall be happy [illegible] any thing I can to [illegible].

Did you raise that big Sonora bean? It grew with me well in immense pods but unfortunately did not ripen. Have you any more seeds left? Like to prove it another trial. [illegible]

Quamoclit pedata [illegible]

[illegible] does it get into Sonora?

In most case a letter from me written a week ago.

Yours [illegible]

G. Engelmann

[illegible]

[illegible]

[illegible] have just finished
a long letter to Palmer which
please read before you give
it to him

I thanks for the flowers which came
here lively and fresh as a young
[illegible] — It that from last year
seeds of Palmer [illegible] I sowed last
[illegible]
ing.

[illegible] I have
[illegible] to dry and not
expose [illegible] they do you give
each summer.

[illegible] Palmer? Yes, [illegible]
a new name
[illegible] it is the same which you gathered
[illegible] and distributed
[illegible] that you name
in Philadelphia as your Parvifl.
[illegible] seed [illegible]
[illegible] of that you
[illegible] things in [illegible] you call
[illegible] that is the
[illegible] great
[illegible] for the [illegible] of Arnaudia
[illegible] Mexico — I propose to name people
[illegible] are all in the same.

ches for his answers

leave questions, but some were

hasty and incorrect — for example

— mil. at Fort Whipple 1855 is

very different from the Mexical

mi — Volkmann, but

failed to get leaves or any

memorandum and evidently do not

recollect now.

The Wheelerge one is very

distinct one — hope the seed will

germinate with me or you.

Long more Cactus or yucca

specimens turned up

The rose or plant the photo

which I get from several sources

is evidently Opuntia nitida. Neither

have good specimens growing now

Johnson — Palmer's are in disgr

hedging — too long packed up

can't see to tell — I'm sorry

collections — Schott will

show, grows. They look well

glad to know you get along.

I read a letter from Schott, speak

of a [illegible] Experimental Cultivation
[illegible] 2 [illegible] of the Parent Plants
[illegible] [illegible] of the Cuttings
[illegible] better than [illegible].
Please hand him this [illegible]
[illegible] and [illegible] to me [illegible]
[illegible] hereby enclosed.

[illegible] make the most of
[illegible] Sketch. [illegible] from the [illegible]
[illegible] [illegible] [illegible] shades [illegible] [illegible]
[illegible] the [illegible] [illegible] have a
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] of
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible].

[illegible]'s grape seed is still good
I shall send soon, [illegible] Dr P. is
[illegible] next spring. [illegible]
[illegible] the same as all grape
[illegible] from the times of the Roman
[illegible] of Vineland
[illegible] [illegible] Down to the present
day — [illegible] grapes are probable
some varieties of them, and among
it you can not get [illegible] [illegible]
better out of the Country
with Vitis vinifera, which
[illegible] [illegible] from either.

[illegible]

[illegible] on the [illegible]

[illegible] don't [illegible]

[illegible] at all [illegible]

[illegible]

[illegible]

[illegible] more are [illegible]

[illegible] is [illegible] than you do — but

perhaps you are right.

[illegible] Check envelope [illegible]

[illegible] [illegible] [illegible] [illegible] even [illegible]

label [illegible] two boxes — [illegible]

[illegible]

Kew, Feb. 18th 1857

My dear Parry,

I have heard with pleasure and satisfaction that you have been permitted to join the Hudson's Bay Expd. Expedition. and Grey just informs me that an interpreter of the Chipewyan tribe or two young explorers have joined you. Nature is a capital thing and a cultivated taste is a blessing of the Deportment and of Science in General.

Let me hope that my Friend's Department will have a little attention and feeling for the Cultivation of the Queen's Dominions, at both of your

are [illegible] [illegible] with the
[illegible] a [illegible] at all [illegible]
[illegible] [illegible] entirely [illegible]
well known genl.

A live Melocactus would
be very valuable [illegible] to
cut up. as the [illegible] [illegible]
of these plants is not fully
known and very curious.

"Yucca aloifolia" of Linnaeus
is said to be a West India [illegible]
while the S. Carolina and Georgia
plant is called by Linnaeus
Y. Draconis. It would be
important to find out whether
both are identical as now often
believed or distinct. There
is evidently a good deal
of confusion which ought to
be cleared up by you. Fruit
and flowers and leaf are
wanted.

A hearty shake of the hand to
you and friend Wright [illegible] [illegible]
return [illegible] [illegible] [illegible] [illegible]
yours truly [illegible]

Yucca ! Melocactus !!

[illegible]

[illegible]

[illegible] all

anxiety was for nothing ! Hang it !

Well, you must have had a glorious time, you and Wright, among the Caribs (did your zoologist besides the tarantulas & earth worms bring any skulls not Caribs? (how do you pronounce ?) or at least Caribs' ?

Have you got my short note reminding you of Melocactus ? P.S. of the letter I included to sorry for you that you did not go to N.Y. want with the big bugs, made your reverence to the biggest — are a big man yourself, noticed by the telegraph etc etc. This is of course not an official communication to the Department & do as you please with it.

[illegible] of advertising

[illegible] I know [illegible] [illegible]
papers sent by Orteau, Schwabach,
Dallas and Oberton even made them
out no plant. Thought I have seen it
small cones with a vital scales. It [illegible]
will perhaps use good operon.
[illegible] many other good things.

But while you run after old
P. [illegible] of Domingo – I discover new
species in the S. E States one at
least and a splendid one and I
call "Stuartii", right from I
staggering ground. At letter to
day, a whole box full of good
specimens is shipping for this port,
so that I can retart it to
all the botanists in the rest
of Mankind. Not in a Darwinian
Scape) you of course included;
also good Pogelia, [illegible]

Agave & Yucca are almost lost on a shelf — All is Pine now and Pine pollen is wafted by the breezes (P. australis from near River March 14th abundant in blossom)

Agave tubiflora — not in Kunth, Enum. but figured and described in the very unsatisfactory work of Descourtilz on the Antilles. t. 284. I did not know where to look for it.

There hangs a tale to Yucca Cubensis (not se). I had to study it with Yucca! HBK call it Yucca acaulis the inferior ovary having been broken off and the enlarged style looking like an ovary. Kunth in Enum. knows of the matter. — I have European cultivated specimens under the name of Agave tubiformis (present of the Earl of Mountnorris)

I have forgotten your latin among its betters — [illegible] (Gillies) and will have it again since [illegible]. Get out!

Have you any Aloë? If so send it to me.

Respect to Palmer, had a letter a few days ago. There is one Mass. about the grasses. The coarse grasses and large flowers from Sacramento Valley are Y. bicrata — all right — but the flowers from the "Mts" are from this species and are not bicrata "am positive!" Now, how is this to come out right? You know bacrata well with that large, coarsely fibrous and fleshy fruit — and I guess there are grasses with large flowers, long petals and others with smaller ones. What say you and Palmer?

There is another leaf from Sacramento Valley which is only 10–12 inches long, 6–9 lines wide, very rough, and which I took at first for Yucca Whipplei without flowers — but may it not be a Dasylirion? You have seen it yourself. Do you know what I mean? Being not involute. As in Yucca usually and flat triangular. "I saw one near" Mr Palmer thinks the Y. from the "Mts" (to tie up quotations with) is not a genuine leaf & supposes it is a small form.

Hope Palmer will see his situation & will do well there! Hope to hear from you again soon.

Yours truly G. Engelm

Mount Gail Gill

Dear Sir

Thanks for the
book received. Not knowing if this
letter reaches you yourself, Prof.
Gray? Have been there? Did
you pass your ?

Did you get any note or in
structions? Did you get a Indian
Cactus Knife?

Did you see Jacob Meire, the
Philadelphia Geologist? Does he
get Cacti? as he did in Lower
California. How can I write
to him?

Has winter been in all charge?

But the object of my letter took
is to enquire about Correspondents
which your department may have
in Mexico, North Carolina, Wilmington
and Southward, or near Albemarle

found to South eastern Virginia.
Throughout that region there is a
valuable timber pine called there
Swamp Pine, Slash pine, or near
Wilmington Rosemary Pine (though
that name is usually given to another
2 better species) It is a highly
prized tree for naval architecture
and trunks have been paid 500 or
600 dollars in New York.

This tree is unbotanically describ'd
but unknown to Botanists. Curtis
speaks of it in his "trees of N. Carol."
but dont know it. Often it is taken
for a Jack pine in swamps,
150 - 170 feet high.
All what I want, is that
any of the Correspondents of the
Agr. Department in that region
should be enquired into whether
he knows the valuable and tall
timber tree, the swamp pine, and
should be asked to send by mail

a few brandlet with very very
near about 1 inch long — either to
your Department, which will be
better, or to me direct. They
will attend better if repeated
to send to you — & you forward
at once to me.

I want make out whether if
is any near N. Elliotti of S.C.
or something else, and such a
specimen will be quite satisfying
as I have the correspondence
specimen of all allied plants.

Will you attend to this?

I suppose you are quite up
work and no spare time to chat
so I won't rob you of it — and
hush up! — Yours truly

Sereno Watson

over

Respects to Palmer — is he
still in Mexico?
You must have lots of letters from me, full
of unanswered questions!

To show you that I don't apply to you, poor overburdened soul, ~~after~~ before having exhausted all other means, I tell you, that both Canby and Curtis have written to me that they don't know a soul in those regions, who could be of use to us in this matter.

Do get the Department to buy Curtis' Collections and notes! I have had a pleasant chat with Dr Gillings last week, and he will try his best also.

W. P. Blake
Rock Point Pennsylvania Co

"Russels Magazine" was published in Charleston before the war, and must be in libraries in Washington. There are two articles, in it, printed probably about 1857 and 1859, by Edmund Ruffin on Virginia & North Carolina farms, which articles I have but want to know when, date, in what number and pages published. Can you help me "without trouble" — so that I can quote! Now — that will do — more anon.

St Louis May 4 1871

Dear Parry,

Yesterday I got your first and today your 2d letter. Thanks for the things and, for those to be sent. Please send Cactus & shall make my acknowledgement when they have come! Have living and flowering Melocacti. I see Savage against and shall cut and slash at them. There is a good deal of inquiry about this vegetation to be unravelled yet.

I have got almost mired down with swamp and mountain pine. My impression is that I get deeper and deeper into these investigations. I have now got into the microscopic structure of the pine leaves.

Well, you have been active about that swamp pine & unearth or bring down some specimens at least. All will be welcome.

But you misunderstood my wishes, or I must have poorly expressed them. What I want is branches with young cones on not a branches and cones, as you write. If some of the many addressees send any thing, the

I have stumble one or the other, on a good specimen. — I guess Mr Curtis & "Curtis" and others have seen the tree, or "branches and cones" but could not accurate much of them — only by studying the inflorescence and things connected with it, the true nature of the tree will come out plainly.

Thanks again then for Collection Botany. — As to the "large favors" or "very large favors" You may know more about it than I do.

I wrote out the Cactis for Watson, but before the proofsheet came back from me they had stuck of the flowers very much to my annoyance and disgust, and I will have nothing more to do with Government publishing, which results from the ill-considered & necessary one — Fish — of delicate & nervous Botanists and no learned of Simple Exp were looked.

If I was not tied, I would offer Watson those two plates of Cactis you send. But I suppose it would be too late any how.

I want of S Domingo all you have about Cactis, Agaves, Yucca (nom?) Nuts, Carpentes &c

sentiment to you. [illegible]
[illegible] seed
the fruit & flower [illegible] will be
valuable. Aloe!

That woolly plant! Cactus is labour.
polygeophelon & big flowers is tiresome.
Quite an acquisition if the seed be good!
Which is not always the case with Cabbage
seeds. I have [illegible] doubtful. I
mentioned it as a little plant.

Hayden is a skilful manager.
Hope to get his report.

Also the Rep. of Agric. Dep. with
the investigation of a [illegible]
about Cattle Diseases etc.

Thanks for Shanghai the Hogs
I shall plant a few [illegible].

[illegible] the other specimens are rare
as they come of course, they will all
be valuable in [illegible]
other.

You offend me by considering
the Epilobe trifolium a good specimen
after all, by which I mean it is a
good, the best, the most [illegible]
specimen — though [illegible]
the credit of [illegible] a [illegible] if
not to be denied by your [illegible]
Dyatard — But get my [illegible]
and I will not scold! The others

[illegible] is [illegible] [illegible] [illegible]
[illegible]

The Agaves I will overhaul when
I see with [illegible] in store now.
"Wait & see" "see a month"
what when?? [illegible] write today my
letter may be [illegible] & [illegible]
25 or 30 days! —

Enough now.

Yours [illegible]

J. Lecontes

You need have a high time [illegible] & [illegible]
even without the spice of old Etude!

E. Rupp publishes two articles on
S. East. Pines in "Russel's
Magazine" pub. in Charleston S.C.
somewhere about 1857. I suppose
I should like to get the date to
quote (the article itself assumes
without reference to date of its
extract from) to have

Dr Palmer then with me, all and to
distinguish 3 Agaves in Arizona

1 Spikes flowered one which I w[illegible]
[illegible] A. spicata from [illegible]
all flowers and fruit.

2 the northern parallelo one; 10-1 [illegible]
scape erect pr. [illegible]
[illegible]
in Canyon of the [illegible]

3 the "southern" parallelo one [illegible]
high [illegible]
[illegible] into seed. "Too poor and small
to be used for Mezcal" This we found
near Ft. Yuma [illegible] last
fall 1870. Have you any of Parry?

[illegible] there is at least one other one, the
plant from Fort Whipple, which is certainly
distinct from any of the others, but I have
only a few detached flowers for Oct. 1865

Do you want Vinkneya seed?
have fresh seed — must in envelope
[illegible] mail

[illegible] Report. Voting p. 2

Nas: Agave n. sp. leaves narrow entire
scape 8 feet high
Not is it? Where is a specimen
[illegible] sent Yucca & Agave
[illegible] to Europe and [illegible]

think that Mr Saunders off Wight
as got them!
[illegible] it [illegible]
[illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]?]

May 4 1871

Dear Mr: I fancy I
was very written: January
with your letter laid aside, and —
forgotten! Shame!

But — If I have not written
as often as I might it was partly
owing to your not answering
my queries, — which were often of
much interest at the time — and
and rather off the point afterwards!
So pray: If I don't answer
your questions, ask again! don't
always wait!

I have thanked you for the
(Potter). I was astonished at the size.
My Member is as large as a pea, the
Album's scarcely larger!

I am anxious to learn whether your
Schottii head will grow — physiologically
interesting. Let me know.

Thanks for Mr & yr now and.
I do not feel really satisfied
that the Agaves mentioned above

Palmer's & Parry's. Seeds seem different
flowers have not seen. No, neither
do there is the world of Amaryllis. But
those Agaves are about as bad as
Opuntias, run into one another, &
each sp. makes innumerable varieties.

Those Agaves sent by you
some months ago were examined
while you was absent and together
with Schott's afforded a deal of
information. Do they belong to
the Department or to Torrey? ×
The Yucca is, I suppose,
the ever present Carbensis. Did
I tell you that Kunth's Yucca aloifolia
is the same thing, ~~very broken off~~!
and his Y. aloifolia which I had from
Berlin is decidedly distinct with
flower of Y. aloifolia! Some
with them anomalous things. ×
with Torrey Y. parvifolia which is by
no means an Aloe as Gray has it
but a Yucca.

I shall be there
but no time now.

Yours

Dear Pa,

You will have got a long letter and be satisfied with me. Well, so I am with you. Large and liberal transmission of specimens. When the Pines Cunninghamii came out in the beds I thought it might be the past instalment of the Black Pine — those that will come also in due time. — I suppose it is native, wild, experience? Here I have from Italy, only have much stouter leaves.

Still better is Podocarpus, with the long leaves I have seen in museums in Europe but leaves in 3 — 4, more rarely in 5; long persistent after maturity — but whether at the apex of each annual shoot, or lateral on it, I can not satisfactorily make out.

But the Cacti! Just large long spined yellow is I suppose an Echinocactus gosselinii and true, with transversal ribbed spines — no E. is described from West Indies. The melocactus seems quite different from the one, sent by Wright from Cuba but with the poor descriptions of the tribe it is difficult to make out. Unfortunately I could not make out the nature of the spadix nor its transition from the

so far — &c.

vegetation part of the plant? For that it would be absolutely necessary to have a live plant to cut up, or perhaps, sections preserved in Alcohol. It is strange how little is known about these Melocacti, though we have Monographs about them! Their vegetation is not understood at all. — I am making some old specimens of some of these Cacti to try to make out what a living plant with the cephalium would be, just now. The American Consul in St. Thomas (where Melocacti seem to be most common) might send to the Department one of them, and I get one of them.

The Lemna you sent is L. paucicostata the same we have here, in Florida. Give the thanks also for the flowers of Viborcinum Schottii. The plant sent last fall is living, but I fear rotten in the core, and not successful with my Cacti.

I have now supplies of Pilosocereus and Cereus from S. Carolina. In addition we may consider, and especially that of Australia, which dont shoot up for 5 or 6 years though it may make abundant & long leaves like a bunch of Yucca. I shall send specimens by & by.

This letter has been detained for about a week! Always putting off & putting off. Now, they comes part of a letter of Dec. This is as you

Rose not a set yet. The species is probably P. serotina — another Rosemary pine! the third!! Hope they will, or some one of them will send the real slash or swamp pine, or "naval timber pine" — best pine, second only to long leaf pine!

"But in heaven's name who is Rocky Point, who is your man"

I return the hieroglyphical writing for you to explain.

Yes Lapham has an herb — all botanology!

Charley has got something in Flo. & which must be my "Restitution". He sent an same leaves and one cone.

Yours truly

J. Engelmann

St Louis, May 20 '71

Letter of Valeur yet

Mobile Mar 22 1871

Dear Dr

a postscript from Fox
of 2 sp. of P. Taeda grow
and True from "Rocky Point"
in your notes I do not say
I know you mean
returned to you a day or two ago.
I think I will write to Mr Black
and learn what he knows of
this is the real old field Pine
Jack, and I may get it transplanted
also, and have better and finer
than that in question, P. Elliottii
has been pitched by Mr Canby
(Washington) on the St Johns River
in Florida! He has sent me a
small branch — 5 — 10 —

It may be that Mr Ruffin
and the others are right and their
swamp Pine
is a real Taeda in its volume
growth in Virginia forests. But

[illegible] often will come on
the Pines provided I can
"bore the crate off a large limb"
I have just emptied the
bag and thought best to direct it
generally. I will see then which
grows best.

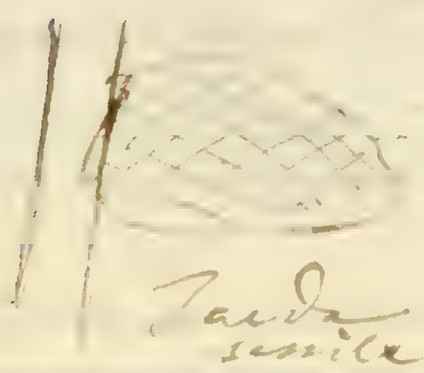
The seed of the Longleaf Pine
(same as the one you send me now a
head) have germinated — nothing
else of any account as yet — a few
Cr. gigantea.

Yours &c

J. Engelmann

The old cones of P. Taeda, rigida, serotina, mitis, pungens and others remain firmly attached to the tree for years

those of P. australis Elliottii, resinosa, Muricata and others fall soon after maturity



Taeda sessile

Elliottii
rounded, pedunculed

Illinois May 4th 1871

Dear Gray

Yesterday after the letter
was off you & packages came
with the genuine & authentic Cereus.
I take it to be Cor. Curtisii
figured in Bot Mag. 3125 (which
I will compare at Illinois & highly valued
Cactus figures & which flowers
in mid to the 18th St. which for
greenhouse).

The young Kea is some-what paler
blue – is that its living colour?
I do not recollect as recollection of having
seen it in Cuba.

I have ~~[illegible]~~ that the "swamp
pine" of N Car is certainly Pinus
i.e. the specimen sent; and I gave
you some of the distinctive characters.
I include here some leaves
in 2s – 3s & 4s of P. Elliottii which

you will find are longer than dried. I hether it will grow in N Carolina and the Swamp Pine on this tree, I do not know, but even if the result of our investigation is that seeds under certain circumstances in a tall tree 150 feet or more, and excellent timber it is well to know that.

I return the fierce sketch after copying. I have a stereograph from Salt Lake which gives an excellent view, but your ~~XXXX~~ photograph shows the bark better than any I have seen. Have not yet seen the Agave photogr. They call it a Mexican var. because they don't know better. Agaves are like Yucca Opuntias very much alike and difficult to distinguish

[illegible] of them, I take it to be really distinct from that species. Have you any Cactus from Mex[illegible] [illegible].

[illegible] spoke — or probably Yucca — of a hook spined Mammillaria (from Carmen Island, Gulf of Calif.?) [illegible] I have seeds germinating [illegible] said a live plant was in Wheeler. Do you know any thing about it? If so, I should like to hear more about it [illegible] get a bunch or two of spines.

Where grows [illegible]?

What is the common hedge species of Cactus of S. Domingo? [illegible] send me a specimen when "it has roots".

You say you keep getting species [illegible] Plan, though so [illegible] If you get anything approaching [illegible] Cereus, send here, [illegible] it.

as if you get detailed Examination as
regards of its being good shipping
timber — it shall if from the Examination
it seems to be Muffin's plant
send it!

[illegible]

[illegible]
day is sending his diploma (under
Emperor Wilhelm) his thesis and
another dissertation which received
a premium in Tübingen.

St Louis Mo May 23 1871

Dr C C Parry

Dear Sir

Here is in North

Carolina and the adjoining parts of Virginia Roanoke Swamps etc especially about Albemarle Sound a pine which grows in rich swampy soil, is taller than any other, and furnishes excellent shipplimber, of which trees, from 50 to 80 feet in length used to be sent to New York market, as Mr Edmund Ruffin was informed by "Mr Herbert" in 1856.

The question is what is this tree, and what its natural history?

It was supposed that it was a Loblolly or Oldfield Pine, which is old native swampy forests, and therefore different from the ordinary form, which grows in dry light soil and is almost universally of secondary growth i.e. old fields, formerly cultivated,

and the branches.

The specimens of a swamp Pine sent to you by Mr. C. R. Black certainly belong to this same species. Does it show differently from the Cat's-foot Pine? Does it consider by the indumentum distinct from it? Does it have more hardened cones of a better quality?

Mr. Lufkin's trees come in part from "Hanover" grown in a "oozy slash" 3-5 feet in diameter and with 150 to 200 annual rings. Others, mentioned by him, come from Bertie (the mast of the Roanoke steamships of war and others) others from Washington County.

Do any of these trees occur individualiniately with 2 and with 3 leaves in each bunch?

There is another Pine growing in swamps all over the South, the "Pond Pine", which however, is worthless, and not tall; it comes near short weak prickles, while the Loblolly has strong pungent knobs.

Yours truly
G. Engelmann

answered July 30

[illegible] 1871

Dear Parry

got your different things at last, one by one. But there is confusion with me or with you.

You send: "Cereus No 1 smooth top" "wood ring" also marked No 1. Sister finds on same paper marked No 2

But the flowers sent are marked: No 2 3 flowers, "Azua" and "Port au Prince" all in same envelope and mixed: so, which is Azua and which Port au Prince I cannot make out. — Now which is No 1 and 2 are the same: the Jamaica & St Domingo seems to be beautifully mixed up. Then there is a living plant of a Cereus, printed "flowers and notes to come" —

These disjointed bits are all puzzles, and rob me of a good deal of time usefully, make confusion. I am too old to unravel them.

I'll return your notes in a few days.

Stop, the Mammillaria is M parvilla which comes often from West Indies.

The thing said as "parasitic on Pine and Juniper" I suppose for Palmer, though nothing is said, is Epiphytic, (I suppose) albo magnifica a new fact that it grows parasitic on Pines — I suppose you meant it is a Chamaethalia. —

Now about the Pines. Your Nuttall specimens are all P. Taeda no Elliottii among them. Though disappointed in this, the important question indicated by E Ruffin is settled, as he already assumed that Taeda in the old original swampy forests is an excellent timber tree. I shall write to Mr Clark.

Don't let me suppose so wasting time in reading specimens.

The woolly head, which I took for Cr. Centrinii may be Cr Florrosa, Hort Berolin. but these

plants are all poorly described, and from Gray's descriptions, so that the divisions, simplicity, etc are not to be relied on at all; it would be almost best to ignore all of them.

It is also probable that many so called species fall together.

— you come to Cambridge you will see our friends there, & wish I was with you!

Brewer has sent me a nice lot of Calif. Yucca & among others the very coveted Yucca whipplei in flower — differed from any other Yucca & splendidly large 5 inches when shelled open!

I will impart to you another secret, some Yuccas have open spreading, & open campanulate corolla, others almost closed or globose ones! And both

are thus figured: good character, is it not?

Well, all Yuccas open at night and close in the Morning — Campanula & bright globose & dry stem!!! Watch for Grey's subdivision Yucca! A Visit to me, send the fun from your Yucca with a few Yucca flowers and a leaf or top of leaf of same plant to compare with my Collection over here. Visit Mem. Bot from Carolina, just wrap it up & send it to me.

Yours truly

G. Engelmann

Stockwell July 1 1877

Dear Dr

I have written to you a few days ago, but here follows another line in answer to your last received yesterday.

I may make your mind easy about confusing me with particulars respecting the old Cactus. I cannot help being confused. Well that is settled, so your last letter need not be answered in that respect.

Your "observations" you have carefully made out "Egyptiaci" &c. I give you credit for having found out the "corona stamina" which was used by "Jussieu" — characterising the genus Echinopsis so quaint as Echinopsis Egyptiaca — but that character is not peculiar to these globose plants, you find it in many Cereus and Phyllocacti! so that Echinopsis is only an abnormally formed globose Cereus analogous in shape to the northern Echinocereus inside different in flower, and inhabitant of

Yucca filamentosa etc. never found by Wislizenus unless cultivated. — They have seen in Orange an Opuntia [illegible] evidently was Chili's [illegible] seeks for the species very poor. Have you any other cultivated? [illegible] Causes are very [illegible].

Suppose Watson has got my [illegible] of Agave and is doing it justice. To increase the Agave comparison [illegible] in some German horticultural paradise where the genus Agave is attempted two names which interest us:

A. Kewfyldy, California Hort Rev. with broadly ovate-lanceolate entire, very cyaneous leaves. This I do not recognize

A crenata Jacobi — Mescal & Maguey of Emory's report — Evidently my A. Vámyi which cannot be different from A. Palmeri (raised from the seeds of Palmer 1869). — I had distributed your seeds of 1867 — Lemaire but had make planted here — Have you any in cultivation? If where? Did you distribute seeds? I had not the fruit from you — only seed. Did you collect any thing else? I have only two seeds left which I want to keep as specimens. I try to get either more seed, or young plants which I may possibly get [illegible] Emory's plant seems to be in cultivation in Europe.

Yours truly

[illegible]

Newport July 21 1871

Dear Parry —

I have found out

why you must have an fine

day!! — Well, these two Cat's are

settled, and you are convinced that

something the Cat has on your

side — with the parasitic Euphorbia

it is the same!! and though

they happen to be, they not really

so naked!!

I don't anticipate of course you to

Philadelphia, if you go — try and

come here — they pay the rent

this year.

Whether I shall be able to go with

you to Cooley Hill — also know

— perhaps I break through the

fleshes with which Med. profession

holds me here! — Yes if it would

suit Mrs Jones & Mrs. Gray. Cat

could be studied, and species, too!

I have recommended Gray's Star
was here to write to you about your
names of Mexicans; Gray, Torrey & Engel-
mann. Gray seems to be popularly adopted.
Gray's doubts the Rail A. Deanei alt.
I have finished all my Delta
& hope with them & his new
Texan, he will prove that we
were near correct. He now is
got assumed my Commissioner.

Nothing as yet from the N C
I fear I suppose they are Kutlux!
but don't care much about
them — satisfied that all is
Jacob.

Sartorius & Coy Liliaceae
about Agave — Can you help
me a little?

Yours, etc.

Geo. Engelmann

Morristown N.J. Feb 28 1871

Dear Prof.

Inclosed Copy

of your letter from me not long ago.

I have more questions of same sort, which you will have to wait for Volumes to answer — of them. Unfortunately he is somewhat little confused.

For instance he knows nothing about A. Newberryi & A. Conversii (which he may have collected); but he told me he recollected nothing about it.

In 1870 he collected flowers you sent me last winter. They are in excellent condition and very characteristic. Where were they collected?

He has sent me from your & Fremont's note about the two alleged species.

In Rattan of Oregon, the Oregon plant, Oregon, or Cheif, I have only seen the southern of Fremont's from Pierson, 1869, specimen. I have first seen your plant. It is to small

— & too poor for "Mezcal" Palmer seem.

To which of these do the agave flowers of 1870 belong? — P. labels them "Mezcal Agave"

You sent me July 1868 to Europe — Description of A Varegi, full of Molasses Candy, but without mentioning leaves. You say: flowers" 1 inch long [without ovary?] capsules dry [as — the agaves] 1½ inches long, scapes 6–8 feet high [1–12 feet side Palmer [illegible]] "[illegible] 2–3 feet wide" "[illegible] always" [illegible] — [illegible] double.

A. Utahensis is well distinguished from all others I know, & better you enough, and will quit. Thanks for that Mamillaria forbesiana. It is only another form of the polymorphous M. vivipara.

The last section is what interests you, & is what I want.

I learn from not help me much about agave.

Yours Truly

28th

I open again to thank you for the information and will it — and from the "complete list" I see as it is! — which will help some. — What has it to do with [illegible] flowers [illegible] called Chlorogalum ???

of Sisalana is in vigour in Florida according to your measurement as in Yucatan besides Pennine figures, and describes it as armed. So Scott. Thompson & the Gov.!

Now it is a most interesting cultivated spineless form.

The mother-plant is of rigida the Chelem of Vernin & Scott and they vary in cultivation between larger and smaller forms — of course probable on that account. — The change in size is wonderful — but not more than we see in other cult. plants.

Thanks for the labels. They seem in too small type. But send on more, at least 2 sets.

Is the Florida Agave made use of for fibre? And what is the fibre good for, and that, imported from

Spermatophyta — what is
some critt's ? Species ?
Genus ? or Tribe ?

I will now begin to
catechize you about Fungi
so you better make a clean
breast of it, before I begin
with the criminal proceedings
side of trunk, length of leaves, spines
points, scape — inflorescence — bulbs
bonality, and any thing else, you
may think of. — No flowers ? capitulum

Kew, August 8th 1871

Dear Perry —

I can say with have offered Dr Hooker & the Spain and offer you have also the right sort in sending that Photograph. It is charming and as I learn that they have the negatives in hand I hope I may be permitted to retain the Photograph. It is better than I could imagine — only pity, as you say, that we have no measure for size. And here I have to weigh Parry of 1868 against Parry of 1871. Then you wrote: scapes 6–8 feet high — now you suggest 12–15 feet — which is true? — Palmer said 10–12 feet (while his own, A Palmer, was 6–8 feet)

I cut the gordian knot and say 10 feet. If so, the leaves are 18–22 inches long — 2½ wide, scape — ½ — ¾ inch thick "used for light canes by the party"

you say.

The shape and direction of the leaves and even their phyllotactic arrangement is pretty exhibited, and gives a good companion to a miniature figure American contributed — they only in the most latitudinarian sense.

Can you give me the exact locality? You say at base of San Francisco Mtns?

I have written to you only a few days ago —

In your letter of July 25 you speak of A. Antillarum and A. Lisalana. The former as I said shows larger and smaller flowers, but I never supposed them to indicate different species — am on the contrary, glad to find variations from different localities. Usually we get only single specimens (not to say fragments) and can not judge of the variability.

for me then that A. atrat. ill. is a common native and cultivated plant in San Domingo? It must necessarily be already described, perhaps under some other name; for A. Atrillanum as such is unknown except by name among botanists.

And Sisalana! So Schott says he has seen nothing like it in Yucatan! His plant have sharp spines. — Can, could cultivation work this change? Why not? His flowers seem identical with yours.

You say that you find in Florida leaves with and without teeth or serratures. So the specimens, you sent me, seem to prove. But if the whatever I find teeth, they are small, cartilaginous, whitish, not pungent. Do you ever find brown sharp teeth, such as most Agaves have? It would be important physiologically as systematically to know (what Agaveophiles dont know) that these conditions may be changed by cultivation.

Of Fourcroya we know that of some species occur with, others without teeth. Your D. Cubensis specimens have all smooth margins — had the old plants also no spines. The Fourcroya cubensis Schott gathered in Yucatan is quite spiny.

Schott collected flowers of wild — cultivated sisal hemp — so he must have seen them, and as I said above, they ferpflower reproduce your florida flowers!

Your florida plant has a character which I have not seen in any other — figure the terminal spine of leaf is terete, not grooved, while in Cucurbitacea & others it is always grooved. Pity we have no leaves of Schott — to see how that is with him. It seems to be a good character.

The leaf of Palmer, you send is much like the photogr. leaf of Vargas!

I should like to get Riggs report on 40 lands of which I learn the 1 vol is out.

Also Agricultural Report with Dr Hill's investigations of Cattle disease & fungi — & Hallier.

Also is Thomas Taylor now 20 Agr. Bur., who wrote me on Grape fungi? —

Yours truly

G. Engelmann

Florence Sept 24 1871

Dear Parry —

a few days ago got your first Washington Correspondence — had expected more from Davenport — but suppose you was so hugely enjoying yourself in your liberty, away from your Journals, carpet (mutter shabby now!) that you did not think or notice time to answer my long letter of Aug 25.

The others day your welcome and undoubted Regulus from Hall delighted me — tasty the flowers of Cirotis and the nice Penjells thanks!

Agave & Yucca are in a state of quiescence — dormant — for want of more material — Schott, however, has at last unearthed his Boundary Agave which is a little different from Palmeri flowered; poor Schott is routed again! I have given

him a letter for my cousin, J. Hilgard of the Coast Survey — whether it does any good? — have not heard. Is Palmer & Dall back? What are the forms, prospects?

You have of course Watson's new Utah flora. He sent me the appendix the other day — a good idea! The appendix of the appendix gives some papers, which will interest you.

You gathered a Yucca in Greenpoint July 3d and sent it to me. Should like to get some ripe capsules, and seed and also a leaf or two.

Seen Meehan, Hooper, Cooley & others here just from Colorado — but I believe I have told you them already.

Mr Engelm. was the only Rocky Mt species of Conifer not found west when — and now that distinction is vanished — All Rocky Mt Conifers occur in the western States but not all Californian in the Atlantic.

I think I must class a sterile Picea with pendulous branches which Brewer sends from Calif or Oregon with Eng.; I had heretofore referred it to Menzies as a very narrow-leaved form.

I suspect that you are the man at whom my shafts ought to have been directed in place of "poor Oliver". But I will not get excited again and will let even the matter with Oliver, when he is back, not trusting to your mediation! Would you be glad of it?

Mitchell says I rifled in Pseudotsuga taxifolia & [illegible] like.

I know that I had other things to say but can not remember now — so shall have to write soon again.

Do thou likewise

yours &c

F. Engelmann

St Louis Sept 30th 71

Dear Fanny —

"give me your sympathy" — Yes, of course, and more than that! the deepest indignation on account of this miserable affair —

Yes, more! I suspect that your and my letters have been opened and abstracted. You speak of "several official letters" which you have written; I have got a single one only since you wrote to me from Davenport, Aug 24. This letter was dated Sept 16th, including Hallis Abies Sagebrush, and was answered Sept 24th — so, I see, you could not have had it at the date of your letter. After that, 2 or 3 days ago, I got an envelope in your handwriting with blank franked envelopes — cursed a little inwardly about your sending no line

with the blanks. Wonder whether you got my letter. I contained a request to send me another leaf and capsule and ripe seed of that same Yucca, of which you had sent unripe fruit in July — spoke about Schott (never thinking you would be in same predicament!) and asked about Palmer.

I was preparing to send a Yucca collection to the department but of course do not now care to take the trouble.

By the way, I sent to you, to ~~[illegible]~~ Aug. 25 in answer to your letter of Aug. 11 did you get it? I did I spoke about the planting of Agave & Yucca after flowering, and I now repeat the question whether your Yucca (mentioned above) does only sprout from the subterranean stem, or from ~~the~~ the axis between the upper leaves, at the base of the scape.

tell me hear from you soon again.
and I will promise to answer
it at once.

I believe Beck! I shall
have to return a few flowers of his
designe — he now seems to remain
in Washington; — seeing which he
may be able to recollect something
about them.

I have unfortunately does not
want any one for 2000 — perhaps
if you could do his work for
200 — and then — only perhaps
if you go south, I would be
hear from you, and instruct you.

Has my old friend Peck any
thing to do with this? I hope
not.

The California wool business
has been through our papers
already — but it was not
said that it came from this
affair were.

The "plane of the leaves" of the Compass plant is not turned "north & south", but each leaf — the edge is turned north & south — see page 213 Rep. Pl.

Cincinnati Ohio.

What shall I do with the blank envelopes??

My wife — — — — — — — best regards — & sympathizes if you don't know better, come & stay a while with us!

Yours Truly

G. Engelmann

Anything about Schott?

Boston Oct 17 1871

Dear Parry —

Yours of 12th rec'd this day. So you have got my letter — no harm, if others, officials, read them: that you are at Sandy Hill! Well do I remember the place and the folks! Give my respects to them.

That you are working to "hoist" these "dolts" — I never credited you with such spirited resistance. Hope you will succeed, but I always believed as you seem to also "politics mighty uncertain".

I do not know why no answer came to my letter, — but suppose they forced you only lately.

Meanwhile I had a strange apparition from your State of N.Y., in the shape of an Arcanthobium! What do you say to that?

Prof Peck of Albany has sent me a branch of Abies nigra from

"in marsh in the town of Sandlake in Rensselaer County"

It is a singular form, diminutive 3–5 lines high, simple, never branched, but perhaps not distinct from the smaller Rocky Mt. form. But the whole ground must be worked over again, which I am going to do now. The specimens are females, and they have given me some clue to the vegetation of these plants which heretofore was to me quite unknown. — Try to hunt them up — "if its not a Sandlake it is a sandhill where you live!"

Yes, you sent me the Juron fruit & seed last year; but I did not know they came from the same stock that furnishes flowers and mature fruit this season. Several species of Yucca have contributed fruit.

I am studying with considerable interest an Italian work on

"Dichogamia" the fertilization of stigmas by the pollen of other flowers, which had long been suspected, even asserted, but was brought to conspicuous clearness by Darwin and has been much studied since.

The subject has interested me particularly on account of Agave and Yucca. In the former the pollen is shed long before the stigma is developed. In Yucca the same lack while in the former it is by the long exserted anthers if it is given to the air, in the latter it is shed in the closed bud. And how it finally finds its way to the receptive stigma (as my statement says) is to be found out. The details of the wonderful apparatus of Lobelia, Campanulaceae, Compositae and many other plants, but don't mention Yucca.

but all that don't interest you now — you are like the Frenchman just now only breathing vengeance!

You will know by this time that the Academy of Chicago is also burnt, completely destroyed. — Poor fires in the North must have been even more horrid. —

Let me hear from you soon!

Yours truly

G. Engelmann.

A friend who just comes from Lake George says that our hotel, 15 years ago, was nothing but a Cottage compared with the present structure. So we have to go again for a fish fry and hunt Arrowhead Island!

3003 Locust st St Louis Nov 21 1871

My dear Parry,

I had a good letter from our friend Torrey a few days ago, and yesterday your of Oct 15. Thanks for the interest you take in Agave and for the unearthing of further material. I had thought that Torrey had sent me all his material, and I do not know what all you have sent me last spring — There was this same nov 1906 of Wright's (Florida only) among them — and I was under the impression that it was from Torrey's herb. — There was also a plant of Mahoney's with Torrey's own handwriting (does Engel) which I felt sure came from Torrey's herb. It is not so — but then, if he did send me through you these things, why not the others — or you now mention? Has a 3d person more done? created a little confusion in the hurry of overwhelming urgent business? * The best thing to clear up

* ? is the Engelmann at St Louis? If it is, I know it will be found to be a mistake.

these doubles will be, to give you a catalogue of the specimens of Agave received from you last spring. And you will please tell me where they belong; and — another question — to whom shall I return what belongs to the Department? I would prefer to keep the things a little longer in my hands, partly on my account and partly on the Department's.

Now to your notes about Agave. To be sure I am almost sunk out of sight among the Arcanthobiums, but still retain a faint love for the stately Agaves, which might very easily be fanned into flame again if the coquettish beauties had a mind to.

Please give me a full description of Thurber's Chihuahua Ag. 714. I have one from Wislizen from Chihuahua — fl. for & leaf (leaf broad, spiny, abruptly long pointed — fl. panicled). I suppose Wright 906 is a larger flowered form of same but how Thurber's "narrow leaved" plant can belong here I do not know.

* I call it A. callosa, on acct. of the swelling at tip of ext lobes of perigon.

Schott's * 1855 "Siem dolos Janos" from Schott himself, very peculiar. I have ~~[illegible]~~, and it is not exactly, yet may be a different thing, one of Pelham's.

Emory's Report p. 89 speaks of an Agave on Oct 18 (not 19th as you write) but apparently either to flowers. A sketch is given on the 2d Cactus plate (Nov 15) opposite the explanation says: Oct 22 abundant, 3 feet high, "fruit 5 inches long" 5 lines ??] I add: probably an Agave.

The "flower of the Agave from Villaseito" is a good thing.

The flower of A American p? Ctifolia which you sent, is valuable. But pray tell me, where does it belong to? To Bigelow's Rockcreek in Texas; or Emory's Copperminee plants? It would do to mix up specimens. Please find out & also the descr. of Capsule is it Bigelow's — I suppose that ~~both~~ the flowers ~~& Capsules~~ belong to Bigelow, as Emory does not mention fl. or fr. or scape on Oct. 18 but then, you sent caps. & seed marked Oct 19. So I refer the flowers to Bigelow and the Caps to Emory.

Put away with Agave! Acanthocalyx is the thing.

I have plenty of Material and hope to make a good thing of it — I suppose there are more species hidden; and your New York plant, though close to A. campylopodum, is I believe distinct. I name it A. minutum. I find that the male flowers and their arrangement gives excellent characters. But I must do as I did with Fuc. vesiculosus, soak every specimen, and make a drawing of it. I can tell you now that A. Amsterdam is a fine species — and always on P. contortus or (on the Lusitanian) P. Banksianus. Yours of Middle Park also belongs here.

Has Torry no male plants of Phoradendron leucarpum? It is a new genus or at least subgenus; but males are necessary before definite conclusion. —

Did you take little interest in these things. I cannot write our friend Torrey about them — especially as you say, he is also studying them. So he will be able to appreciate the secret [illegible] in [illegible]

Write soon!

I forgot to say that I shall apply to me for a set of recommendations. I thought prospects decline, as long as your case was yet pending. Mr Watson has peremptorily declined. Who will take up the mantle fallen from your shoulders? Pity if the plants & microscope should fall in bad hands! O the politicians, the bungling rascals!

Yours ever —

G Engelmann

Agave-Antillarum Descourtil. I find not in my books. You have sent me a leaf, and flowering branches and flowers. But there are two sets; one with much smaller flowers than the other; do you recollect which is which?

What is size of panicle? You say largest branches 1 foot — therefore diameter of panicle 2 feet — length?

Scape 9 — 10 feet high —

The two sets of flowers are interesting, showing how they may vary in size and somewhat in proportion.

I have a capsule from you, but no ripe seed — may you have any!

Strychnos is so named by Linné [illegible] and nothing in it bitter, and it is probably known by some other name. Prince's Report (1838) I have; the plant figured is [illegible] the entire leaves, so could the one he introduced in Key West. But now is it that Schott's plant is herb and in Hyp. Report

also bulbiferum

is a very different thing, with spring leaves etc. I want you to settle that matter with him. He never mentions the bulbiferum without spring leaves, and unless there is a positive difference — plant — I have written to him.

I have the 11 Aftes. Agaves in pretty good order, almost ready to march up; A. Utyoide just flowering in my yard has given me a good sight — ought to see the others alive also.

It is only your & Oldham Aftes. Agaves with panicled flowers that are in confusion yet; the spiked ones are all right; the specimens of panicled ones in my hands are the following:

folii's coalitis – dentatis:

1. A. Mexicana Sam. West N Mex. Wright 1906
only flowers; Wall specimens from
Dr Wislizenus from Chihuahua

2. A. Fargii E. 35th Parallel seeds only
1867 seeds larger, plant larger,
than next; very plants in Europe

3. A. Palmeri E. Texas etc therefore
further south, than last. capsule
seeds and leaf 1869 (but without point,
base, or margin!! Can't you send
a better one?) and now very plants.
the same? flowers, Palmer 1870
very different; but do they belong
really to this plant?? as Palmer
and you thought all the same,
it is difficult to decide.

folii integri sinuati

5. A. Newberryi E. & Torr. Exp.
an incomplete sp. & Hb Torrey
but probably very distinct

folii ternati

6. A. Cowesii E. from Fort Whipple
flowers only –

So you see there is difficulty which probably only another collector will be able to solve.

The spiked ones are all right

A. parviflora Torr. very pretty and distinct.

A. Schottii E. (A gamviflora Torr)

A. heteracantha Jacc (A Lechuguilla Torr

A. Utahensis Eng. (A George.

So you see we have abundance of Agaves.

Palmer says the northern plant (No. 2) is the Mezcal Agave (as you do also) and adds that his Texan plant is too weak and small to be used thus.

Have you any capsules of your 1867 Mezcal Agave?

The Utah Agave has germinated.

List of Agave specimens sent by Dr Parry to Dr Engelmann from Washington in the Spring of 1871

A. bundle supposed to belong to Prof Parry

A. Newberryi Engelm. p.t. Peacock spring glued up Arizona

A. Utahensis Bigelow, Arkansas

A. macrodasa Hook. Wright 1905 N Mex

The same Camargo, Schott

A. Utahensis Aiken S.C Ravenel

Fourcroya Yucatan Schott

A. Lechuguilla Mex Bourd 1432

same Wright 682

same Wright 1907

"A. geminiflora" Mex Bourd 1433

"A. vivipara" Yucatan Schott 201

A. Sacqui " " 202

Agave flowers Wright 1906

B bundle from A Schott, plants not glued

"Agave geminiflora" Schott 1855 Arizona

A. parviflora Torr Schott 1855 (a lovely spring)

A. macrodasa Schott 1852 Texas